

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

MISSOURI SECTION.

GEORGE REEDER, Section Director.

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COLUMBIA, Mo., AUGUST, 1915.

No. 8

GENERAL SUMMARY.

August, 1915, in Missouri was markedly abnormal. It was excessively cloudy, unusually cool, and excessively wet in all divisions, save the northwest plateau. Taking the State as a whole the month was the coolest of its name since official records began in 1888, and the wettest in the past 48 years.

Except the 1st, 2d, and 15th, 16th and 17th, mean temperatures were noticeably and continuously below normal; and both the maximum and minimum, 98 and 37 respectively, are the lowest for August in 27 years. Light frost occurred at a few stations on the 30th, and at 11 stations on the 31st.

Rains occurred almost daily, being excessive on several days, especially from about the 7th to the 10th, and 18th to 21st. During the latter period they were torrential in the eastern part of the Ozark plateau and the southeast lowlands, and caused much damage to crops and other property—an aftermath of the great tropical storm that entered the interior near Galveston on the 16th-17th, and which moved northward in a modified form, crossing Southeast Missouri on the 20th. The following excessive rainfall occurred on the 20th: Poplar Bluff, 5.80 inches; Ironton, 6.70 inches; Oakfield, 8.18 inches, and St. Louis, 8.20 inches.

Thunderstorms were frequent, and quite severe on several days; hail, however, occurred on one day only, the 22d.

PRESSURE.

Well marked high and low pressure waves passed near or over the State at quite regular intervals of about every 4 or 5 days, and as a result the weather of the month was changeable, and differed widely from the accepted August type. The most marked low, which was accompanied by torrential rains, crossed the southeast part of the State on the 19th-20th. The most pronounced high pressure of the month passed on the 30th-31st, attended by clear skies, unusually low temperatures, and light frosts.

TEMPERATURE.

The monthly mean for the State, 65 stations reporting, was 69.8°. The mean departure from the normal for 51 stations having 10 or more year's record was minus 6.5°, which is the greatest deficiency for any August since the beginning of official records in 1888. The mean temperatures and departures from normal by divisions were as follows: northeast plain, 68.7°, deficiency 7.4°; southeast lowlands, 72.9°, deficiency 4.8°; Ozark plateau, 69.8°, deficiency 6.5°; southwest plain, 70.2°, deficiency 6.8°, and northwest plateau, 69.0°, deficiency 6.4°. Day temperatures did not reach 100° at any station, but they were 90° or higher in the southeast lowlands on 8 or 10 days, and in other divisions on 1 to 3 days. On the mornings of the 30th and 31st minimum temperatures were 40° or lower quite generally, the lowest being 37° at two stations, which is the lowest since 1888.

HUMIDITY.

As a rule the month was an unusually humid one. For the State as a whole the relative humidity averaged from 10 to 14 per cent above normal. The hygrograph record at Columbia shows only seven days with the afternoon minimum below 50 per cent, and only two days below 40 per cent.

PRECIPITATION.

The average precipitation, 78 stations reporting, was 7.86 inches. The departure from the normal for 67 stations having 10 or more years' record was plus 4.15 inches, which is the

largest excess for this month in 48 years. The average precipitation and departure from normal for each division were as follows: northeast plain, 6.72 inches, excess, 3.59 inches; southeast lowlands, 11.20 inches, excess 8.58 inches; Ozark plateau, 10.86 inches, excess 6.80 inches; southwest plain, 5.78 inches, excess 1.83 inches, and northwest plateau, 4.01 inches, deficiency 0.04 inch. The greatest local monthly fall was 15.14 inches at Koshkonong, and the least, 1.78 inches, at Macon. The greatest amount in any 24 consecutive hours was 8.20 inches, at the University of St. Louis, St. Louis, Mo. Excessive amounts of from 3 to over 8 inches occurred in 24 hours or less at 6 or more stations.

The average number of days with 0.01 inch or more precipitation was 12.

WIND.

The prevailing winds were from the northeast. Fresh to strong winds occurred on seven or eight days.

SUNSHINE AND CLOUDINESS.

The month was unusually cloudy. The average number of hours of sunshine for the State was 233, which is about 20 per cent below normal. At Columbia the percentage of possible sunshine was 47 per cent, while the normal is 75 per cent.

MISCELLANEOUS PHENOMENA.

Fogs, Dense—2d, 12th, 13th, 14th, 15th, 24th, 25th and 31st. Frost, Light—30th and 31st. Hail—22d. Halos, lunar—23rd. Halos, solar—9th, 12th and 23rd.

Thunderstorms occurred on 17 days; they were more or less general only on the 1st, 2d, 7th, 16th and 17th.

ERRATA FOR JULY, 1915.

Avalon—Monthly mean temperature should be 74.0. At Kidder the monthly mean should be 71.6.

PRESSURE, HUMIDITY, SUNSHINE AND WIND DATA.

STATIONS	Mean Barometric Pressure (Sea-level)	Mean Relative Humidity.		SUNSHINE		WIND.			Date.
		7 a. m.	7 p. m.	Total hours	Percentage of possible.	Total movement, miles.	Average velocity, miles per hour.	Max. Velocity.	
Columbia	30.0	92	.....	199	47	4,349	5.8	26	n
Hannibal	29.88	88	.....	.....	.....	4,835	6.5	37	n
Kansas City	29.90	84	63	258	61	6,794	6.1	33	n
St. Joseph	30.00	79	67	240	56	4,133	5.6	38	nw
St. Louis	29.86	88	74	233	55	7,525	10.1	54	ne
Springfield	29.99	90	74	214	51	5,527	7.4	32	nw
Cairo, Ill.	29.91	90	77	.....	.....	5,231	7.0	44	se
Keokuk, Iowa	30.06	83	68	251	76	4,063	5.5	24	w

COMPARATIVE DATA FOR AUGUST.

YEAR	Temperature			Precipitation			Number of Days			Clear	Partly Cloudy	Cloudy
	Mean	Departure	Highest	Lowest	Mean	Departure	Greatest in 24 hours	Total snowfall unmeasured	With .01 inch or more			
1888	74.0	-1.6	110	48	7.25	+3.80	.....	0	11	.....	.....	.....
1889	73.5	-2.1	101	52	1.96	-1.49	.....	0	14	.....	.....	.....
1890	73.3	-2.3	104	49	4.84	+1.39	.....	0	9	.....	.....	.....
1891	73.2	-2.4	108	38	5.34	+1.89	.....	0	8	.....	.....	.....
1892	74.3	-1.3	100	40	2.42	-1.03	4.50	0	6	17	\$	6
1893	72.8	-2.8	100	40	2.20	-1.25	5.60	0	4	18	10	3
1894	77.0	+1.4	111	39	1.58	-1.87	3.07	0	5	14	16	1
1895	75.3	-0.3	104	48	4.23	+0.78	3.50	0	8	15	11	5
1896	76.6	+1.0	107	41	3.26	-0.20	4.80	0	6	17	10	4
1897	74.1	-1.5	108	41	2.39	-1.06	6.88	0	6	19	9	3
1898	75.8	+0.2	103	44	3.03	-0.42	5.00	0	5	17	10	4
1899	78.8	+3.2	107	49	3.35	-0.10	4.75	0	7	18	10	3
1900	80.3	+4.7	105	52	3.51	+0.06	4.28	0	6	19	9	3
1901	78.4	+2.8	109	47	1.88	-1.57	2.77	0	5	19	9	3
1902	75.0	-6.6	103	47	6.16	+2.71	4.33	0	10	14	11	6
1903	74.4	-1.2	102	43	5.40	+1.95	7.84	0	10	16	11	4
1904	73.7	-1.9	100	43	5.46	+2.01	6.40	0	8	16	10	5
1905	76.4	+0.8	102	48	4.69	+1.24	4.43	0	8	19	7	5
1906	76.6	+1.0	101	40	4.72	+1.27	3.94	0	11	14	10	7
1907	77.3	+1.7	109	47	3.71	+0.26	3.55	0	9	17	8	6
1908	76.4	+0.8	102	46	3.87	+0.42	6.30	0	8	17	9	5
1909	79.5	+3.9	110	40	0.55	-2.90	4.00	0	2	24	6	1
1910	74.7	-0.9	103	40	2.77	-0.68	4.21	0	6	15	9	7
1911	75.4	-0.2	103	41	4.20	+0.55	5.17	0	7	15	8	3
1912	76.2	+0.6	104	41	4.19	+0.74	2.62	0	9	17	8	6
1913	82.8	+6.9	110	41	1.06	-2.51	3.51	0	3	22	7	2
1914	78.0	+1.8	106	49	4.25	+0.60	3.50	0	9	15	9	7
1915	69.8	-6.5	98	37	7.86	+4.15	8.20	0	12	12	9	10

Climatological data for August, 1915.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.				Precipitation, in inches.				Number of days.				Prevailing direction of wind.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	With precip., 0.1 inch or more.	Clear.	Partly cloudy.	Cloudy.		
<i>Northeast Plain</i>																				
Bonville.	Cooper.	600	39	68.5	- 6.8	89	16	44	31	29	8.68	+5.28	3.25	0	14	15	0	16	ne	C. Randecker.
Brauswick.	Chariton.	652	36	68.2	- 6.5	88	16	40	31	32	5.35	+1.33	2.34	0	14	19	8	13	ne	Louis Benecke.
Columbia.	Boone.	784	26	68.2	- 6.5	88	16	40	31	32	4.29	+1.25	1.45	0	14	6	11	14	ne	U. S. Weather Bureau.
Fayette.	Howard.	725	31	68.3	- 8.7	91	16	39	31	38	5.92	+2.62	1.60	0	15	15	18	14	n	L. A. Higley.
Fulton.	Callaway.	818	24	68.3	- 8.7	91	16	39	31	38	6.80	+3.99	2.10	0	9	8	10	13	se	J. W. Pulliam.
Gorm.	Scotland.	700	27	68.1	- 6.9	89	16	41	31	30	4.49	+1.11	1.13	0	12	7	9	15	n	U. S. Weather Bureau.
Hannibal.	Marion.	534	23	68.1	- 6.9	89	16	41	31	30	8.44	+5.45	2.51	0	15	9	7	10	w	C. T. Madsund.
Hermann.	Gasconade.	482	42	68.0	- 7.4	92	16	44	31	29	5.61	+2.94	1.45	0	14	21	0	10	n	Miss Emma Swift.
Jefferson City.	Cole.	628	30	69.3	- 7.4	92	16	44	31	29	8.06	+4.16	0	11	11	11	11	.....	J. T. Dewey, M. D.	
Keytesville.	Chariton.	660	3	68.2	- 6.7	86	15	38	31	36	6.71	+3.80	3.10	0	10	15	8	8	e	J. T. Farrell.
Louisiana.	Pike.	500	38	68.2	- 6.7	86	15	41	31	32	1.78	-1.12	0.59	0	8	12	8	11	ne	John A. Cook.
Macon.	Macon.	881	18	68.0	- 9.4	90	16	41	31	32	3.35	+1.33	0	12	3	16	16	nnw	J. F. Llewellyn.	
Mexico.	Audrain.	797	38	69.2	- 6.9	93	16	39	31	35	6.09	+3.36	2.80	0	12	6	14	11	n	E. E. Steines.
Oakfield ^{††} .	Franklin.	793	24	69.4	- 7.5	90	1+	47	31	27	13.21	+9.97	8.18	0	14	6	14	11	uw	W. B. Markell.
Palmyra.	Marion.	652	4	68.0	- 7.5	91	16	39	31	33	5.47	+2.27	2.06	0	12	6	14	11	.....	L. D. Baker.
St. Catherine.	Linn.	914	3	67.7	- 6.6	86	7+	42	31	27	3.57	-1.17	0	10	8	19	4	ne	L. C. Saenger.	
St. Charles.	St. Charles.	614	38	69.8	- 6.6	91	1	45	31	30	10.93	+7.98	5.90	0	12	8	10	13	s	U. S. Weather Bureau.
St. Louis (1).	St. Louis City.	717	45	70.4	- 6.8	92	16	52	31	21	11.43	+8.77	7.02	0	13	5	16	10	ne	St. Louis University.
St. Louis (2).	do.	578	4	70.0	-	91	16	50	31	24	13.01	+8.20	0	15	7	13	11	n	Frank Hall.	
Steffenville.	Lewis.	576	23	69.8	- 7.0	93	15	41	31	39	6.26	+2.79	1.48	0	10	9	16	6	nnw	Geo. W. Davis.
Unionville.	Putnam.	1,072	23	67.0	- 8.7	88	1+	37	30	34	2.30	-1.72	0.97	0	5	12	10	9	nnw	C. B. Ellis.
Vandalia.	Audrain.	796	5	68.8	- 8.4	91	2	45	31	30	7.26	+4.52	3.00	0	13	11	9	11	nnw	Prof. J. H. Frick.
Warrenton.	Warren.	805	25	68.8	- 8.4	91	2	45	31	30	7.26	+4.52	3.00	0	13	11	9	11	.....
<i>Southeast Lowlands</i>																				
Cape Girardeau.	Cape Girardeau.	346	10	75.6	-	94	1+	48	31	37	7.49	-	3.35	0	10	88	28	13	w	D. L. Albert.
Cardwell.	Dunklin.	225	5	75.6	-	94	1+	48	31	37	10.28	-	2.82	0	11	19	5	5	s	E. M. Perry.
Carutherville.	Perinscott.	220	25	75.4	- 3.7	92	1+	51	31	35	10.79	+7.79	3.70	0	11	16	8	7	e	H. E. Averill.
Domiphon.	Ripley.	440	11	72.2	- 5.4	91	1+	44	31	37	13.98	+10.23	4.00	0	11	12	7	12	sw	W. W. Martin.
Jackson.	Cape Girardeau.	458	25	73.0	- 2.8	95	6	43	31	40	9.15	+6.09	4.10	0	12	9	5	17	n	L. M. Bean.
Marble Hill.	Bollinger.	420	24	69.8	- 7.1	93	16	44	31	36	7.38	+4.61	0	7	8	9	4	.....	Dr. A. F. Hendricks.	
New Madrid.	New Madrid.	285	22	70.1	-	94	1+	45	31	35	12.48	+9.01	4.50	0	17	14	1	16	se	Miss Josie Smith.
Patton (near) ^{††} .	Bollinger.	430	1	70.0	-	94	1+	45	31	35	14.55	+11.41	5.30	0	14	13	4	14	s	George F. Ellis.
Poplar Bluff.	Butler.	333	12	72.7	- 5.9	98	1	45	31	35	12.71	+9.34	3.15	0	17	12	5	4	nnw	Albert E. Cox.
Sikeston.	Scott.	328	15	73.6	- 4.1	94	2+	41	31	32	10.28	+7.35	2.62	0	13	8	10	13	n	H. B. Derr.
Cairo, Ill.	Alexander, Ill.	359	43	72.6	- 4.4	91	16	50	31	23	10.28	+7.35	0	13	8	10	10	.....	U. S. Weather Bureau.	
<i>Ozark Plateau</i>																				
Arlington.	Phelps.	695	14	70.0	-	92	16	38	31	32	5.81	+1.86	1.77	0	14	9a	17a	4	w	G. V. Randolph.
Bagnell.	Miller.	534	...	70.2	- 5.9	90	6	42	31	34	14.92	+10.95	3.08	0	13	13	7	11	w	Mrs. Nellie V. Houser.
Belle.	Maries.	1,000	24	70.2	- 5.9	90	6	42	31	34	14.92	+10.95	3.08	0	13	13	7	11	ne	A. J. Wofford.
Birchtree.	Shannon.	1,200	22	70.2	- 5.9	90	6	42	31	34	14.92	+10.95	3.08	0	13	13	7	11	ne	V. H. Kirkendall.
Bolivar.	Polk.	1,020	28	70.4	- 6.8	92	16	41	31	34	9.50	+5.84	2.56	0	12	13	15	3	ne	A. C. Fink.
Cassville.	Barry.	1,500	5	69.6	-	91	5	39	31	44	11.23	-	3.82	0	8	19	4	8	s	Mrs. Zuma Bloomer.
Dean ^{††} .	Putaski.	1,300	5	69.7	-	95	1	39	31	42	9.84	-	2.17	0	14	17	2	12	sw	Roy W. Reed.
Duncan.	McDonald.	1,000	17	70.1	- 7.9	91	16	42	31	38	7.47	+3.64	2.92	0	13	14 ^a	4 ^b	12 ^c	sw	H. E. Dean.
Eldon.	Webster.	1,400	3	70.0	-	92	16	38	31	32	5.81	+1.86	1.77	0	14	9a	17a	4	w	C. A. Mingus.
Fruit City.	Miller.	934	15	70.0	-	91	16	48	31	35	18.17	+1.87	3.05	0	15	13	3	15	ne	Edward H. Shepherd.
Gano ^{††} .	Dent.	1,150	3	68.6	-	91	16	48	31	35	13.67	+10.04	5.37	0	12	12	9	10	ne	R. C. Walton.
Goodland.	Ironton.	1,250	12	69.6	- 7.3	93	16	39	31	34	13.67	+10.04	5.37	0	12	12	9	10	w	A. C. Leach.
Ironton.	Taney.	1,000	11	70.0	- 4.6	90	17	38	31	29	12.15	+9.17	5.00	0	10	14	8	9	w	F. M. Adams.
Houston.	Texas.	1,280	23	69.0	- 6.2	89	1	40	31	34	9.54	+5.29	2.30	0	11	21	0	10	sw	W. P. Chapman.
Iron.	Iron.	925	38	68.9	- 4.5	92	16	37	31	36	14.69	+11.26	6.70	0	14	5	12	14	ne	R. F. Harmon.
Koshkonong.	Oregon.	911	15	70.0	-	90	1+	46	31	24	15.14	+11.41	2.87	0	14	9	6	9	ne	R. H. Delano.
Lebanon.	Laclede.	1,255	27	70.2	- 6.2	92	15	38	31	37	9.40	+6.20	2.93	0	19	11	6	14	sw	R. M. Hitt.
Lockwood.	Dade.	1,088	21	70.2	- 6.5	90	16	45	31	30	8.56	+4.49	1.87	0	13	10	10	11	ne	C. S. Crow.
Mountain Grove.	Wright.	1,490	17	68.6	- 6.9	89	1	39	31	34	14.89	+11.03	4.70	0	17	8	9	14	sw	Mo. Fruit Exp. Sta.
Mount Vernon ^{††} .	Lawrence.	1,480	37	68.4	- 9.5	91	16	42	31	34	7.96	+3.86	2.65	0	6	9	6	7	sw	J. R. White & Son.
Neosho.	Newton.	1,083	33	70.7	- 6.2	93	16	40	31	35	9.06	+4.98	1.86	0	12	13	10	8	sw	W. O. Buck.
Rolla.	Phelps.	1,139	34	69.4	- 6.4	90	1+	42	31	32	12.29	+8.57	4.35	0	15	10	12	9	sw	Prof. Elmo G. Harris.
Springfield.	Greene.	1,350	28	68.8	- 6.0	88	16	48	31	24	10.81	+6.50	3.06	0	14	11	10	10	sw	U. S. Weather Bureau.
Wheatland.	Hickory.	926	23	68.8	-	98	1	37	30+	44	7.86	+4.15	8.20	0	12	12	9	10	ne	Mrs. S. A. Jackson.
<i>Southwest Plain</i>																				
Amoret.	Bates.	850	7	70.8	-	92	6	44	30	29	7.30	+3.33	4.65	0	6	20	5	6	sw	Darby Fruit Farm.
Clinton.	Hourly.	800	29	70.0	-	92	16	42	31	34	5.19	+1.84	2.00	0	8	9	17	5	sw	A. E. Derwent, M. D.
Harrisonville.	Cass.	912	43	69.1	- 6.2	90	16													

Daily precipitation for August, 1915.

Stations.	Watershed.	Day of month.																																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total					
<i>Northeast Plain.</i>																																						
Boonville $\frac{1}{2}$	Missouri	.42	3.25	.06					.09	.06		.05			T.	.65				1.34	.20	.72	.30		.15				.40	.99		8.68						
Brunswick $\frac{1}{2}$	Grand	T.	.28	.94												T.	.33				.37	2.34	.10	.05	.05								5.35					
Columbia $\frac{1}{2}$	Missouri	T.	.03	.01					.61		T.	.33			T.	.59			.01	.23	.24	.07	.09	1.30									4.29					
Fayette																																						
Gorin	Mississippi	.07	.84	.01					.05																													
Hannibal $\frac{1}{2}$	do	.23	.38	.07	T.				.37																													
Hermann $\frac{1}{2}$	Missouri	.90	1.06	.06																																		
Jefferson City $\frac{1}{2}$	do	.10	.05	.85																																		
Kayneville	Chariton	.35	.32																																			
Louisiana	Mississippi	.66	.74	.16																																		
Macon	Chariton	T.	.10	.34	T.																																	
Mexia $\frac{1}{2}$	Mississippi	.03	.11	.65	.01																																	
Oakfield	Meramec	.50	.72	T.																																		
Palmyra $\frac{1}{2}$	Mississippi	2.06	.47	.01																																		
St. Catherine	Grand	.48	.39	.01																																		
St. Charles	Missouri	1.74	.04	.18																																		
St. Louis (1) $\frac{1}{2}$	Mississippi	.16	.94	.02																																		
St. Louis (2)	do	1.19	.06	.04																																		
Steppenville		1.48	.65	.45																																		
Unionville	Grand																																					
Vandalia	Mississippi	.50	1.60																																			
Warrenton $\frac{1}{2}$	do		.01	.25	.03																																	
<i>Southeast Lowlands.</i>																																						
Cape Girardeau	Mississippi	.50	.05																																			
Cardwell	do	.60	.18																																			
Carutherville	do	.13																																				
Doniphan	Black	.13																																				
Jackson		.29																																				
Marble Hill	Mississippi	.26	.25	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	13.98				
New Madrid $\frac{1}{2}$	do	.05	.10																																			
Patton (near)	do	.60	.40																																			
Poplar Bluff	Black	.63	.03																																			
Sikeston	Mississippi	1.05	.02	.15																																		
Cairo, Ill. $\frac{1}{2}$	do		2.60	.61																																		
<i> Ozark Plateau.</i>																																						
Arlington $\frac{1}{2}$	Gasconade	.12	.14	.08																																		
Bagnell																																						
Belle	Meramec																																					
Birchtree	Black	.22																																				
Bolivar	Osage	.46																																				
Cassville	White	T.	.84																																			
Crocker	T.	.13	T.																																			
Dean	Gasconade																																					
Duncan	Neosho	.02	.07																																			
Eldon	Osage																																					
Fruit City	Black	2.00																																				
Gano	Meramec	.44																																				
Goodland																																						
Hollister	Black	.58																																				
Houston	T.	.30	T.																																			
Ironout $\frac{1}{2}$	Gasconade																																					
Koshkonong	Mississippi	.45	.35	.17	T.																																	
Lebanon $\frac{1}{2}$	Black	.04	.17																																			
Neosho	T.	.90	.15																																			
Lockwood	do																																					
Mountain Grove $\frac{1}{2}$	White	T.	.48	.28																																		
Mount Vernon	Neosho		.13	.15																																		
Neosho	do		.07																																			
Rolla	Meramec	.39		.13	T.																																	
Springfield ***	White	T.	.67	T.																																		
Waverly	Osage																																					
<i>Southwest Plain.</i>																																						
Anoret	Osage		.08																																			
Clinton	do																																					
Harrisonville $\frac{1}{2}$																																						
Lamar $\frac{1}{2}$	Neosho	.70	T.	.02	T.																																	
LaMonte	Missouri	T.	.15	T.																																		
Marshall	do		.40	T.</td																																		

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observation.

Precipitation measured in the morning: amount then recorded is for the preceding 24 hours.
Trace or less than 0.03 inch.

*** Regular Weather Bureau station; precipitation is for 24-hour period, midnight to midnight.

** Regular weather Bureau station; precipitation is for 24 hour period, midnight to midnight.
** Precipitation in the next following measurement.

† Separate dates of fall not recorded.

Daily temperatures for August, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
<i>Northeast Plain.</i>																																
Brunswick §§.....	87	84	64	71	81	84	82	85	77	81	82	71	75	83	87	89	85	70	72	70	80	82	79	74	76	70	75	75	66	71	77.5	
	72	69	50	54	56	59	63	64	64	65	63	63	64	64	68	69	66	62	60	51	57	62	60	52	53	56	54	53	45	44	59.5	
Columbia.....	85	86	60	68	79	84	82	86	77	77	82	79	70	82	88	88	86	72	69	64	78	82	78	74	76	68	73	74	65	64	72	76.7
Fayette.....	72	70	58	55	55	62	65	64	64	63	61	60	62	62	66	71	68	63	61	57	55	55	64	57	49	61	55	49	55	48	40	59.6
Hannibal.....	86	87	70	69	77	84	81	86	84	73	82	80	78	89	87	89	79	68	73	66	78	82	81	72	74	69	73	75	66	64	71	77.0
Jefferson City §§.....	70	68	55	56	59	56	64	65	63	67	65	60	61	63	64	70	65	60	57	61	56	61	55	48	56	54	48	57	45	41	59.2	
Macon §§.....	85	88	64	70	78	84	85	86	83	81	82	76	84	89	90	84	66	75	66	79	83	80	74	76	71	75	74	62	65	73	77.8	
Mexico §§.....	71	67	61	55	55	56	58	65	63	65	61	60	60	62	65	65	62	61	59	55	56	58	49	55	54	49	53	44	41	58.1		
Oakfield.....	87	90	70	70	86	81	77	84	81	74	85	89	93	89	70	70	63	61	58	55	55	55	54	49	55	54	49	53	47	39	59.4	
St. Catharine.....	82	85	70	70	80	83	86	85	81	80	73	80	85	86	76	70	73	68	79	80	79	75	74	70	73	71	62	63	69	76.5		
St. Louis (1).....	70	66	59	55	54	56	63	65	61	64	61	59	60	63	68	66	62	60	59	57	49	60	54	50	56	43	42	58.9				
Unionville §§.....	88	87	66	73	78	84	83	85	84	85	83	80	82	80	83	89	66	68	65	80	85	81	67	78	69	74	75	72	65	73.5		
Warrenton §§.....	90	91	68	61	81	86	83	87	82	73	80	82	80	83	80	83	89	66	68	65	80	85	81	67	78	69	74	75	72	65	73.4	
<i>Southeast Lowlands.</i>																																
Cardwell.....	94	90	85	82	86	90	90	88	93	85	80	88	90	90	94	93	86	82	74	82	84	88	87	78	81	80	76	72	85.2			
	71	70	68	55	53	53	60	70	65	65	60	63	62	66	64	66	62	54	56	67	64	62	60	60	59	54	42	41	61.9			
Caruthersville.....	92	91	85	81	86	91	90	85	88	85	82	86	90	90	92	89	92	82	74	72	81	82	86	84	80	78	72	75	84.1			
Doniphan.....	91	87	80	82	87	91	88	85	86	80	87	87	89	89	91	85	87	72	72	82	85	86	80	75	79	76	70	72	82.4			
Jackson.....	94	92	83	86	85	95	88	86	82	81	76	83	87	85	90	90	84	86	75	75	81	85	88	80	77	77	71	72	83.1			
Marble Hill.....	71	71	66	61	64	55	59	65	76	65	65	59	62	65	74	74	70	65	61	55	62	60	55	56	54	53	43	42	62.8			
Poplar Bluff §§.....	98	90	85	81	81	86	91	86	83	86	82	81	88	89	90	92	91	86	74	73	83	85	83	86	81	79	70	65	63	83.2		
<i>Osark Plateau.</i>																																
Birchtree.....	88	84	79	77	84	90	83	86	82	71	82	85	85	85	87	88	82	78	70	65	79	82	75	84	78	72	67	72	79.6			
	69	63	53	57	56	60	66	69	62	63	61	60	64	66	67	67	68	65	59	53	57	64	61	59	54	54	52	42	40.8			
Cassville.....	88	88	78	80	91	94	84	85	80	82	83	82	79	84	89	84	72	70	73	79	85	84	83	84	74	67	75	80.7				
Danean.....	64	63	55	44	47	57	65	63	64	61	59	60	63	61	66	67	65	60	45	60	61	54	66	59	54	51	39	58.5				
Eldon.....	91	88	76	83	84	90	82	88	83	79	83	82	82	85	90	92	88	86	75	82	83	77	75	71	75	77	77	77	81.8			
Fruit City.....	90	87	67	77	81	88	81	83	76	70	79	84	85	89	86	91	89	80	72	76	79	73	77	72	77	77	76	78	78.0			
Gano.....	63	60	55	50	60	64	63	60	61	68	57	54	55	65	71	84	85	86	60	52	58	63	64	55	52	48	49	52	49.5			
Hollister.....	82	86	82	84	88	90	84	88	80	74	84	88	88	82	94	94	90	74	70	74	82	84	86	82	87	82	82	82	83.4			
Ironton §§.....	89	88	70	73	81	86	82	86	80	79	80	85	84	85	88	92	85	76	67	68	80	83	85	84	80	77	75	79.5				
Lebanon §§.....	69	68	58	50	53	56	56	56	56	56	56	59	56	59	64	62	67	67	69	64	69	64	59	54	51	50	46	37	61.0			
Mountain Grove §§.....	87	84	68	75	81	87	85	86	87	74	80	85	86	87	88	87	81	74	73	80	85	87	85	81	78	77.8						
Neosho.....	65	63	51	48	58	64	63	67	62	60	63	66	65	65	60	61	54	60	63	57	59	52	54	52	49	53	49	49	42	42.5		
Rolla §§.....	90	89	67	71	80	87	84	88	79	70	83	88	86	88	90	87	74	64	62	71	74	78	75	80	70	76	77	70	78	78.2		
Rolla §§.....	69	69	53	56	58	57	61	65	62	64	63	60	62	65	67	69	67	60	57	62	63	60	51	50	48	40	59.1					
Springfield.....	85	85	70	73	79	84	81	82	74	70	78	73	75	73	75	83	86	82	72	67	70	75	72	72	73	65	64	64	70.3			
<i>Southwest Plain.</i>																																
Amoret.....	88	85	81	79	86	92	89	81	84	83	88	88	89	90	81	85	75	78	70	65	84	86	82	80	75	76	74	74	74	82.5		
Clinton.....	69	68	57	51	51	62	67	61	61	64	59	60	62	63	65	66	66	62	58	51	58	50	59	51	51	49	44	44	49.5			
Harrisonville §§.....	87	85	72	74	84	89	78	86	76	81	76	81	81	88	90	85	77	70	71	78	80	79	74	77	73	76	76	71	71	81.0		
Lamar §§.....	88	88	72	78	87	90	85	87	75	78	83	85	82	87	91	93	88	80	74	82	87	82	88	78	75	78	76	76	81.5			
Lamotte.....	87	82	74	83	82	90	87	83	71	84	87	81	87	84	91	92	87	84	76	78	82	87	85	83	75	76	76	76	80.8			
Marshall.....	79	68	60	66	67	69	69	67	68	69	63	64	66	67	69	67	60	63	60	59	65	67	60	47	46	47	48	46	38	60.3		
Marshall.....	87	87	75	72	86	88	83	87	83	78	80	83	82	87	87	91	87	81	74	78	80	85	87	81	74	77	77	73	79.1			
Warrensburg.....	90	90	73	76	85	91	90	82	81	85	81	85	83	92	95	92	87	73	74	80	88	80	77	77	70	76	77	70	78.0			
Warsaw.....	90	90	75	76																												